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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,350	09/08/2003	Cheri M. Boykin	1792A1	1646
7590	07/26/2006		EXAMINER	
PPG INDUSTRIES, INC. INTELLECTUAL PROPERTY DEPT. ONE PPG PLACE PITTSBURGH, PA 15272			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/657,350	BOYKIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sin J. Lee	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 May 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,5-35 and 37-40 is/are pending in the application.
  - 4a) Of the above claim(s) 28-34 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,5-9,15,16,24-27,35 and 40 is/are rejected.
- 7) Claim(s) 1,8-14,17-23 and 37-39 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 September 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## **DETAILED ACTION**

1. Applicants canceled claims 2-4 and 36.
2. In view of the amendment of May 15, 2006, previous 102(b) rejection on claims 1-3, 5-9, 15, 16, 35 and 36 over Crutchfield et al'018 and previous 102(b) rejection on claims 1-3, 5-9, 15, 16, 35 and 36 over Takimoto et al'340 are hereby withdrawn.
3. Due to newly cited prior arts, the following rejections are made non-final, and *the Examiner sincerely apologizes for this.*

### ***Claim Objections***

4. Claims 1, 8, 9, 11 and 37 are objected to because of the following informalities:  
In claim 1, line 5, applicants need to change “substrate” to --- surface ---. In claim 8, line 1, applicants need to change “claim 3” to --- claim 1 ---. In claim 9, line 1, applicants need to change “substrate” to --- surface ---. In claim 11, line 1, applicants need to change “the applying step” to --- the step for applying the peroxide-containing material -- - (since it is not clear whether the applying step is for applying the peroxide-containing material or the polyalkoxysiloxane material). In claim 37, lines 1-2, applicants need to change “the photoactive material” to --- the photoactive coating ---. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

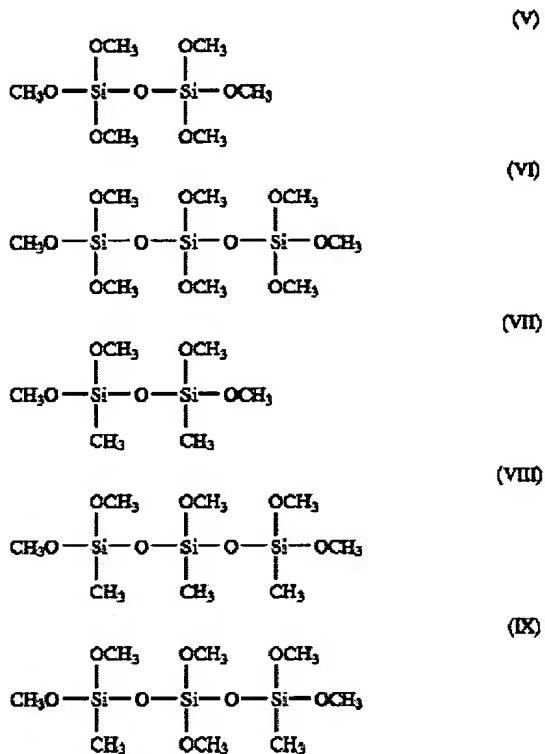
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Sonokawa (5,922,505).

Sonokawa teaches a printing plate precursor containing a substrate, a *photosensitive* layer and a silicone rubber layer (claim 1). Sonokawa furthermore teaches (col.3, lines 47-67, col.4, lines 1-40) that his silicone rubber layer can contain an oligomer such as those shown below (in order to improve the aging stability and the curing characteristics of the coated film) and that *partially hydrolyzed products thereof* also give the same effect.

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Therefore, Sonokawa teaches present inventions of claims 26 and 27.

7. Claims 1, 5-7, 9, 15, 16, 24, 25, 35 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Vajo et al (US 6,537,379 B1).

Vajo teaches (see claims 1 and 16) a method in which a *photocatalytic* coating containing *titanium dioxide* is deposited on a surface of a spacecraft and then a jet stream of an oxidizing agent comprising hydrogen peroxide is directed onto the surface of the spacecraft (to oxidize the photocatalytic coating). In col.4, lines 35-36, Vajo teaches that the stream of the oxidizing agent covers the surface. Therefore, Vajo's teaching meets present limitations of claims 1, 5-7, 9, 15, 16, 24, 25, 35 and 40.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vajo et al (US 6,537,379 B1).

Vajo teaches (claim 2) that the thickness for the photocatalytic coating (containing titanium dioxide) ranges from 5-20,000 Å. Since this range overlaps with present range, the prior art's teaching renders present range *prima facie* obvious. In the case "where the [claimed] ranges overlap or lie inside ranges disclosed by the prior art," a *prima facie* case of obviousness would exist which may be overcome by a showing of unexpected results, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Therefore, Vajo's teaching renders obvious present invention of claim 8.

#### ***Allowable Subject Matter***

10. Claims 10-14, 17-23 and 37-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Vajo does not teach or suggest present polyalkoxysiloxane material of claims 12, 17, 37 and 38.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333.

The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*S.-f.-L.*

S. Lee  
July 23, 2006

*Sin F. Lee*  
**SIN LEE**  
**PRIMARY EXAMINER**